

BUILDING 4 - TIMBER FOLLY

CONCEPT MODEL



Building 4

TIMBER FOLLY



D

D - TIMBER FOLLY:

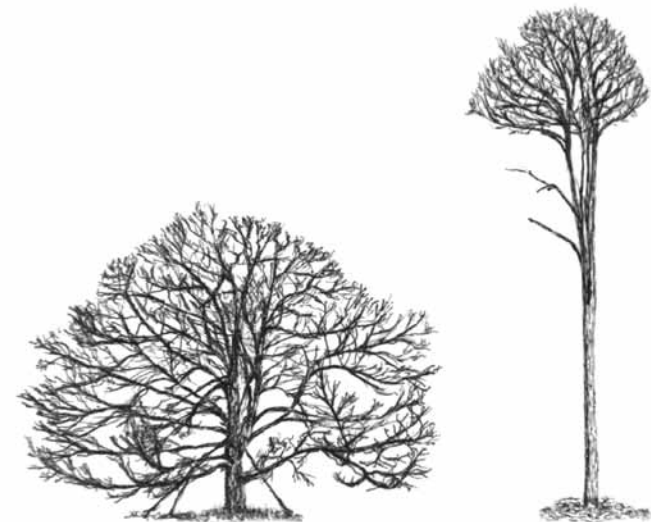
Leaves are the most conspicuous and physiologically possibly the most important organs of a green plant.

- Prof. Kristo Pienaar on leaves.

(PIENAAR 1979:22).

INTERSPECIFIC COMPETITION - In ecology the term is used to describe the process whereby individuals of different species compete for resources e.g. food or living space. For a tree to survive in a dense forest, it must grow taller than its neighbours, absorbing as much sunlight as possible (BEGON, TOWNSEND & HARPER 2006:5).

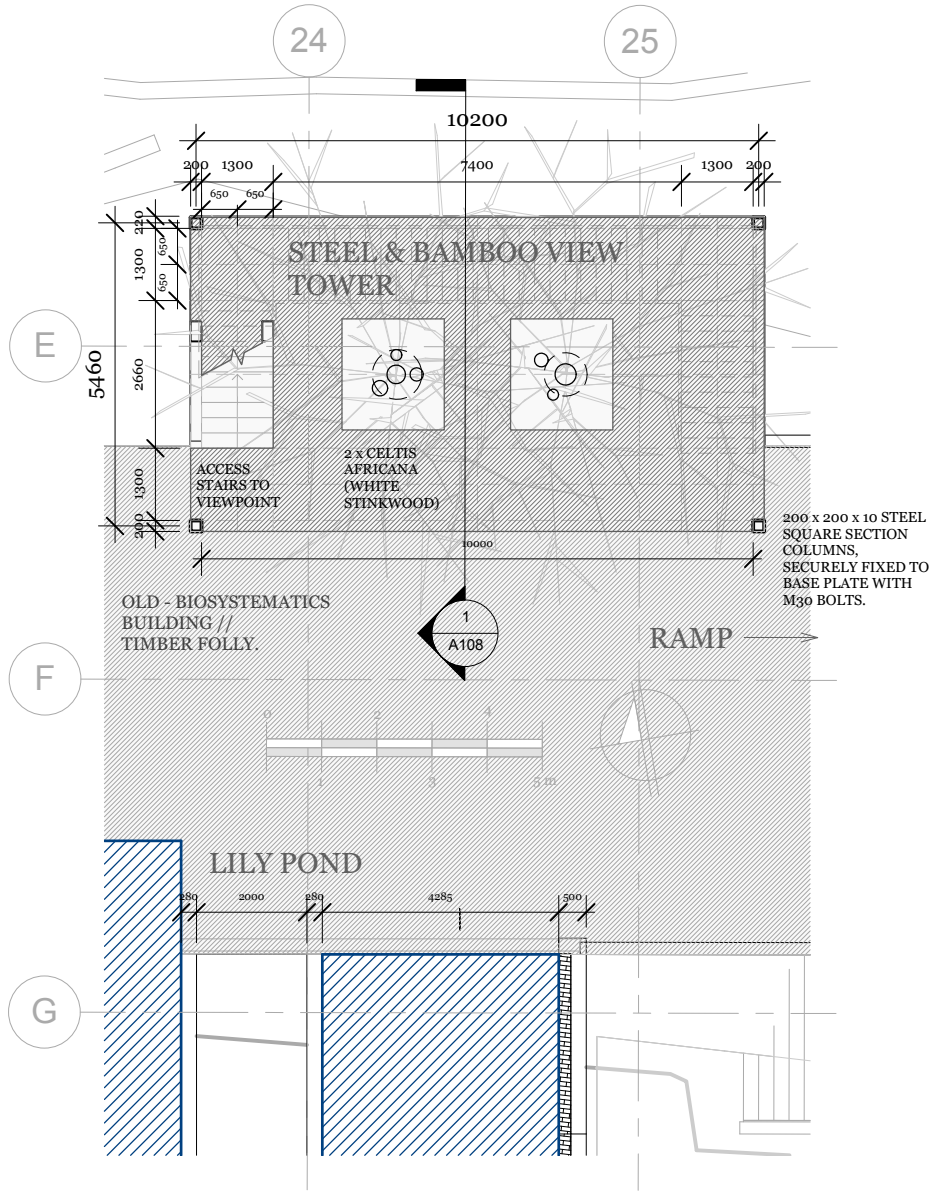
FORM - The building is planned on the Northern tip of the old Plant Pathology building. The eighteen meter high building relates to the scale of the Union Building. The idea behind the building was to recreate a forest environment through the architectural envelope, recreating an environment in nature through the building. A spiraling staircase guides visitors up the tree canopy to two viewing decks. The upper deck is a platform overlooking the Union Buildings.



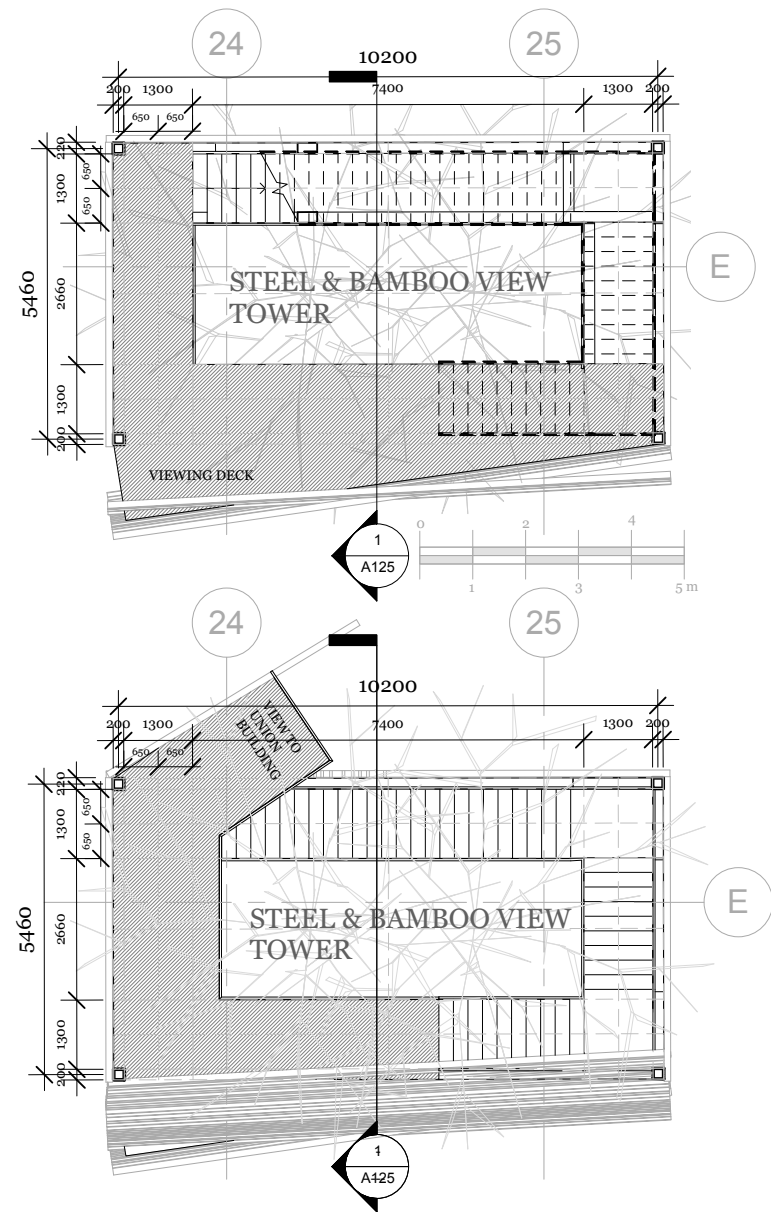
Fig_124: The Social Struggle of plants: Two different specimens of white oak (*Quercus alba*). The specimen on the left is a free-standing tree, while the tall, slender tree on the right grew in a forest.



TIMBER FOLLY GROUND FLOOR PLAN



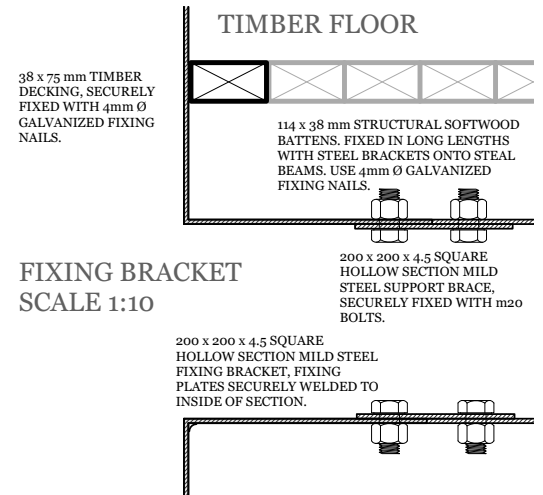
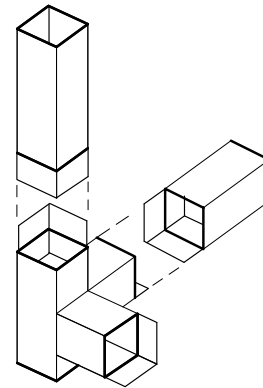
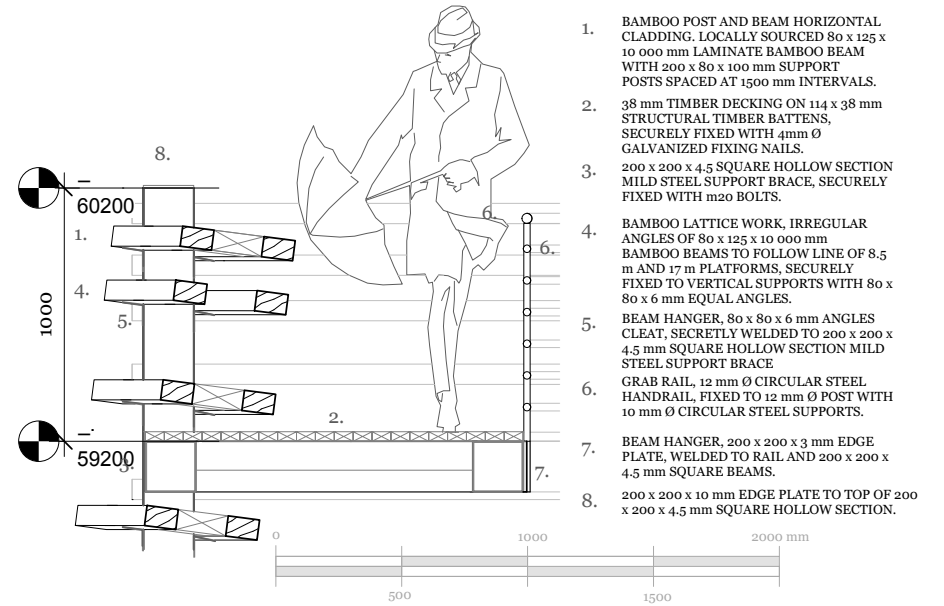
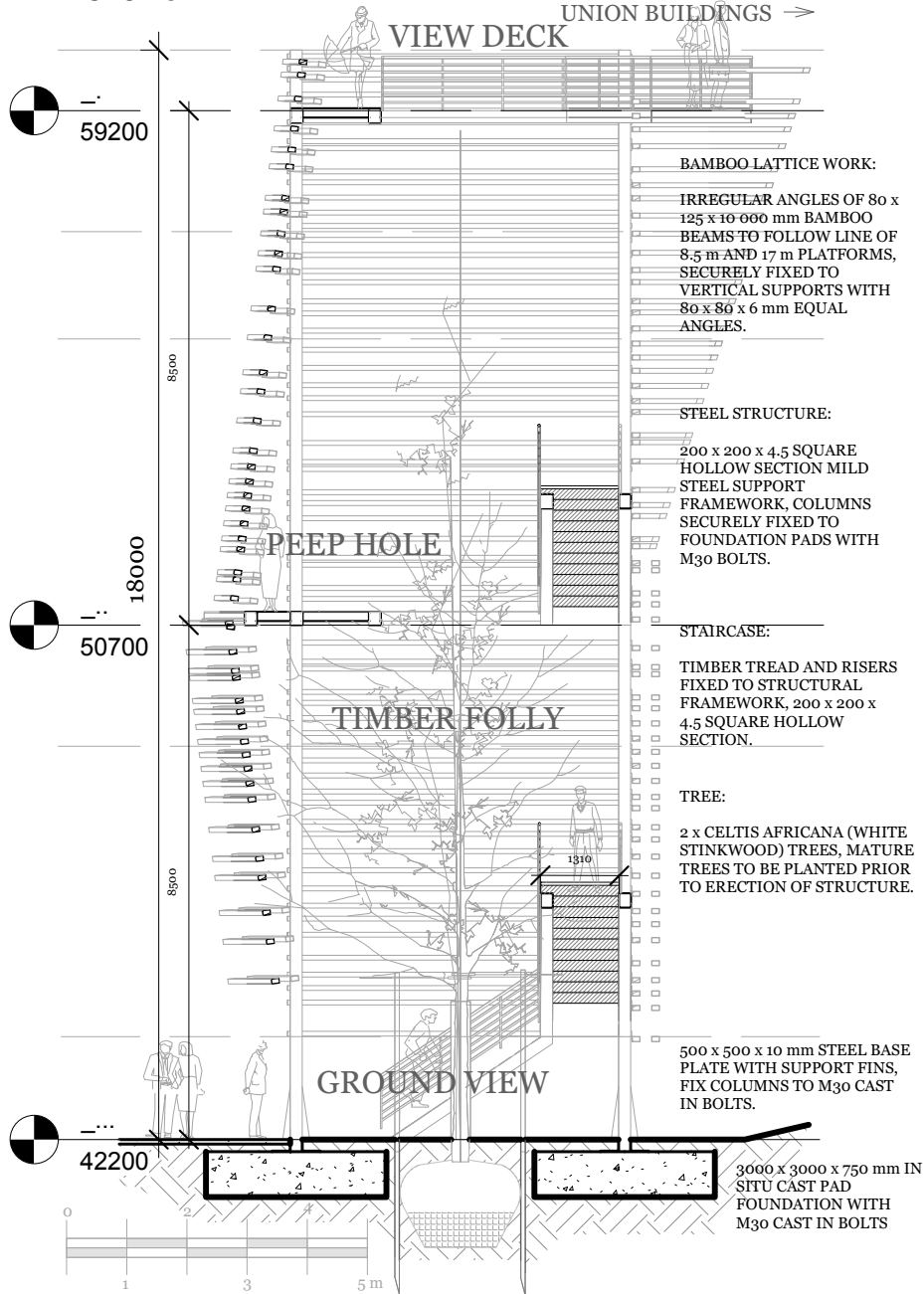
TIMBER FOLLY FLOOR PLAN: 6M & 18M



TIMBER FOLLY SECTION



TIMBER FOLLY DETAILS



BUILDING 5 - LILY POND

CONCEPT MODEL



Building 5



E

E – LILY POND:

A fountain is perhaps the most delightful of all the ornamental accessories that go to complete a garden, and one in which the sculptor may find the greatest scope and freedom of his fancy and skill.

- Abstract from *Sex in the Garden*.

(RIKER & ROTTENBERG 1976:139)

WATER HYDROLOGY - Ecologists view water as a defining part of all ecosystems. Through the process of erosion, water has grafted the form of almost all our physical landscapes. Water shapes all living ecosystems by its quantity, amount, distribution and occurrence (BEGON, TOWNSEND & HARPER 2006:65).

FORM - Built on the footprint of the old Plant Pathology building, the lily pond is a gathering place for water in the entrance garden. A stream of water flows from the pond to House Vrede, indicating the movement route to visitors. The pond is designed to exhibit indigenous water plants.

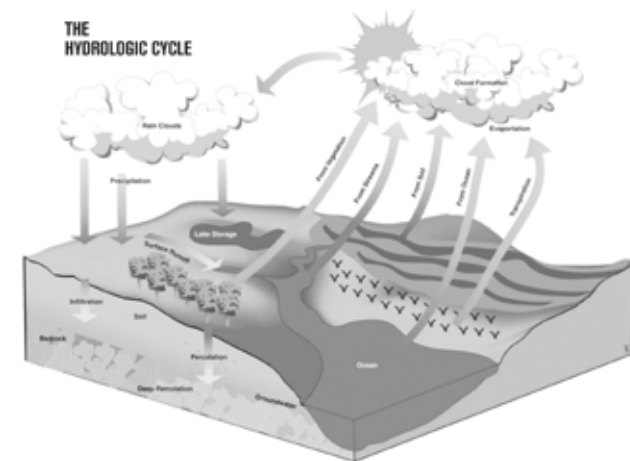
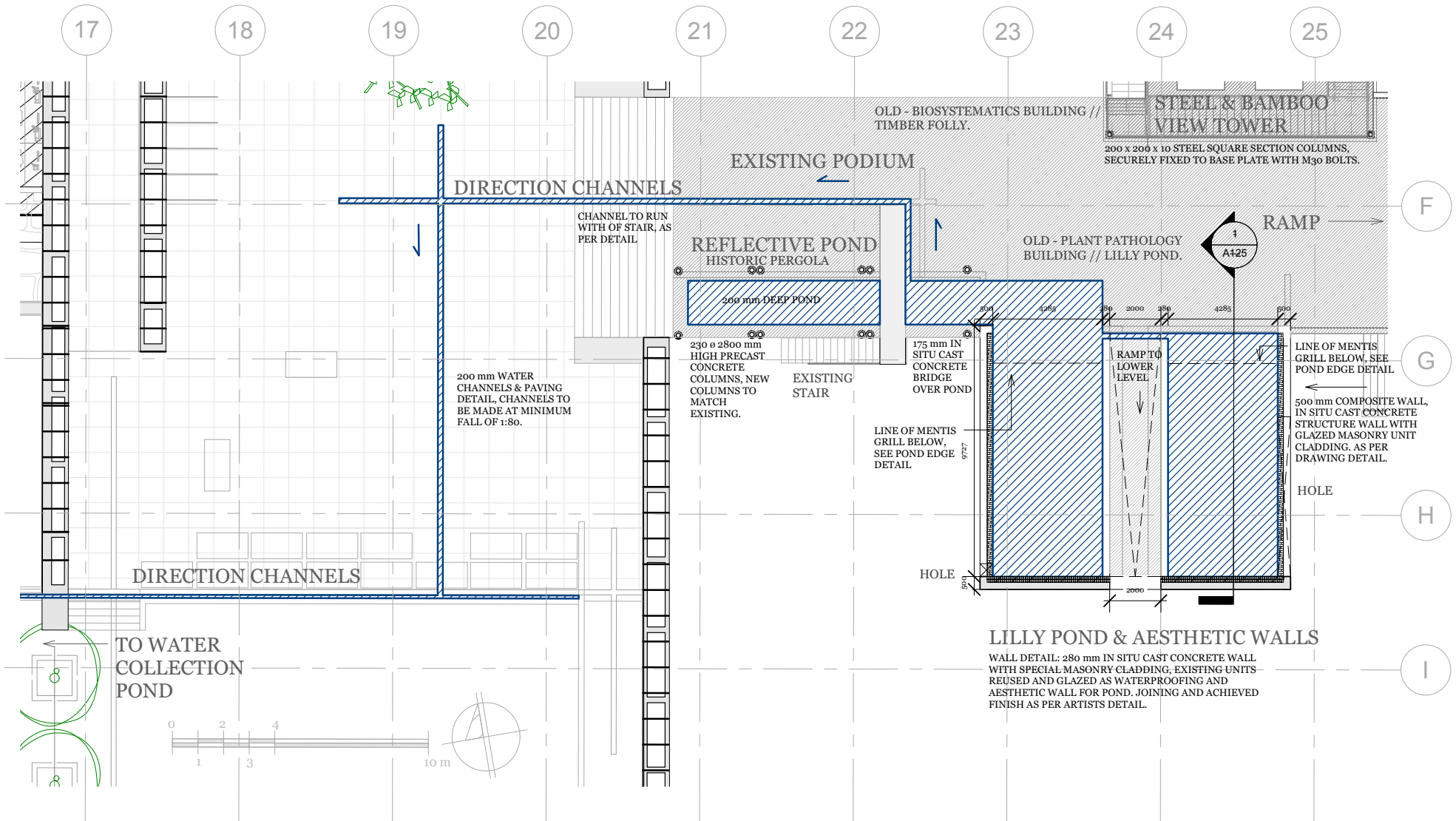


Fig. 131: Hydrologic cycle: The water cycle plays a key role in ecosystem functions and processes.

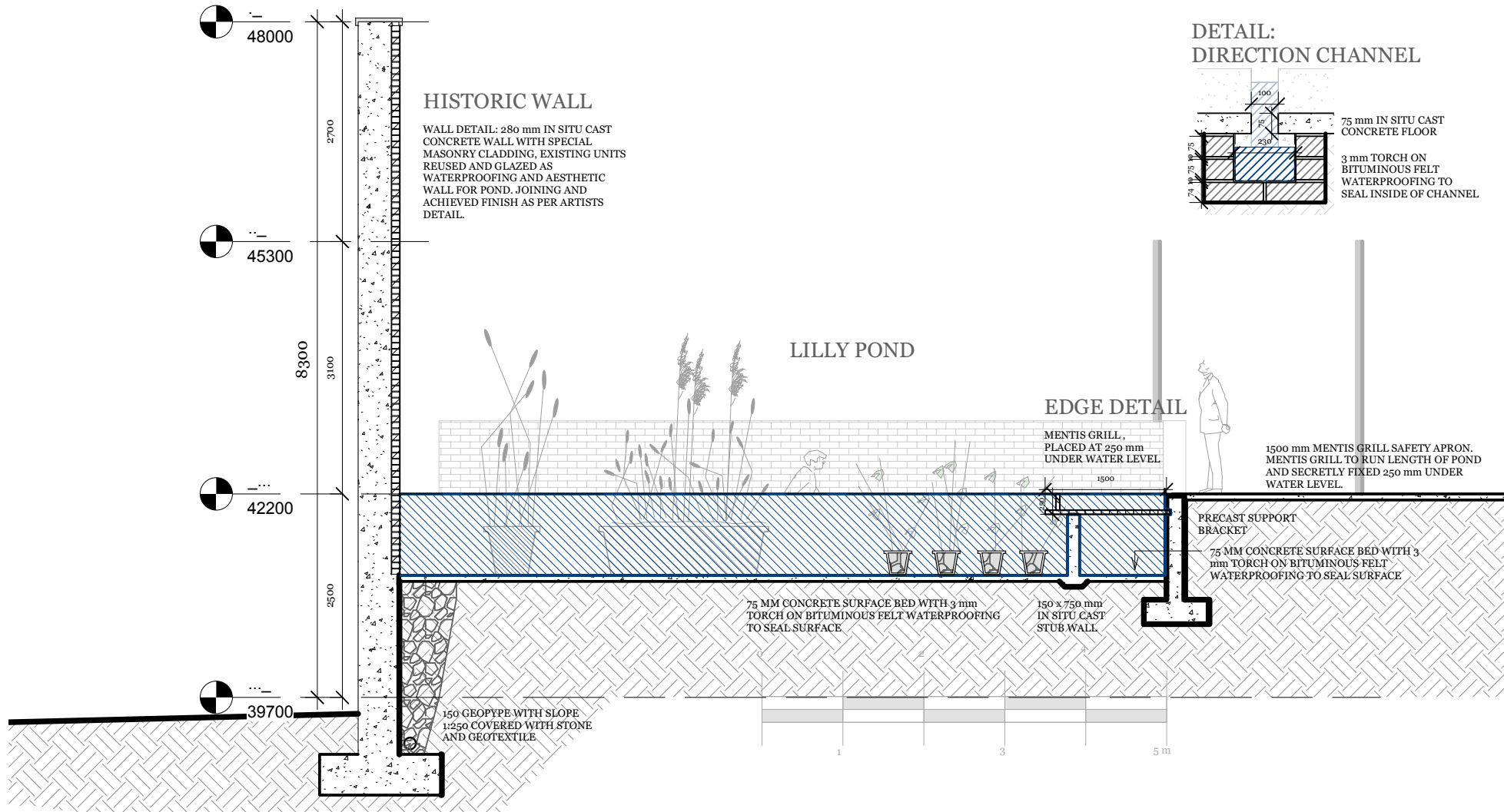


LILY POND PLAN



LILY POND

SECTION & DETAIL



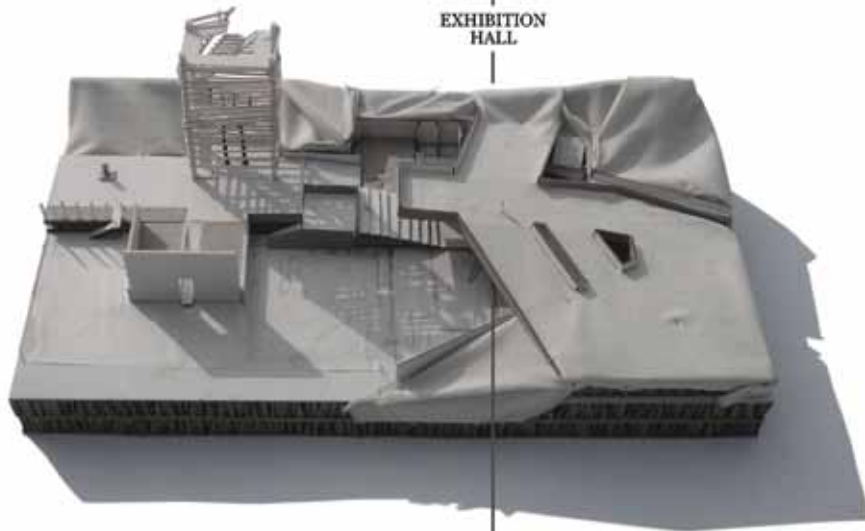
BUILDING 6 - EXHIBITION HALL

CONCEPT MODEL



Building 6

EXHIBITION HALL



F

F – EXHIBITION HALL:

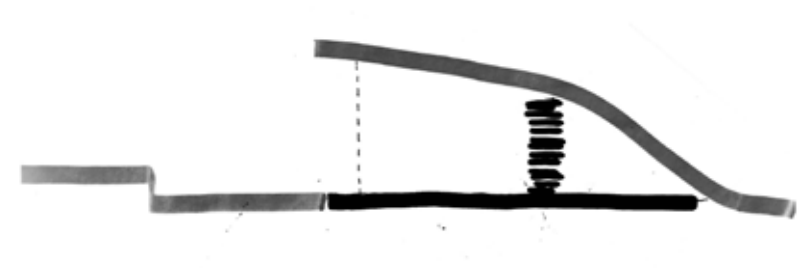
IDEA - The aim of the building is to create a shielded environment for the exhibition of plants. The roof of the building encloses the space to form a sheltered place. Shaded and protected from the African sun, the space mimics a cave like atmosphere for the exhibition of more sensitive plants i.e. orchids and other epiphytes.

BRIEF AND ASSIGNABLE AREA - With a floor area of 1080 square meters, the exhibition hall has a schedule area of 220 assignable square metres. Built on the footprint of the old maintenance building, the programme of education and exhibition are covered by a large-span green roof. The education facilities include an outdoor amphitheater and stage for workshops and lectures.

SITTING AND BUILDING PLANNING - Located on the east edge of a platform formed by structures on the site, the building is cut into the landscape. A two meter level difference is accommodated by an access ramp. Facing west, the programmes in the building are arranged round the ramp. Movement and functions in the building are covered by three ten meter wide concrete roofs that open up to the east edge of the site - allowing users to access historic trails of the Union Building estate.

FORM - The form terminates the Eastern end of the entrance podium as an cave that connects to the landscape. The building form is dominated by its roof, a concrete roof fans out in three ten meter wide parts that puncture the landscape. The 200 mm thick roof is covered with grass. The idea behind the roof allows the landscape to fold over the structure, connecting the exhibition buildings on the platform to the adjacent Union Building gardens.

INDOOR EXHIBITION - Two light-wells are cut in the slanting roof. Built at a 110° angle to the floor plan, movement in the space is directed by a thirty meter wall. The plane forms a mouth dividing the interior space from the landscape, inviting users to the building.

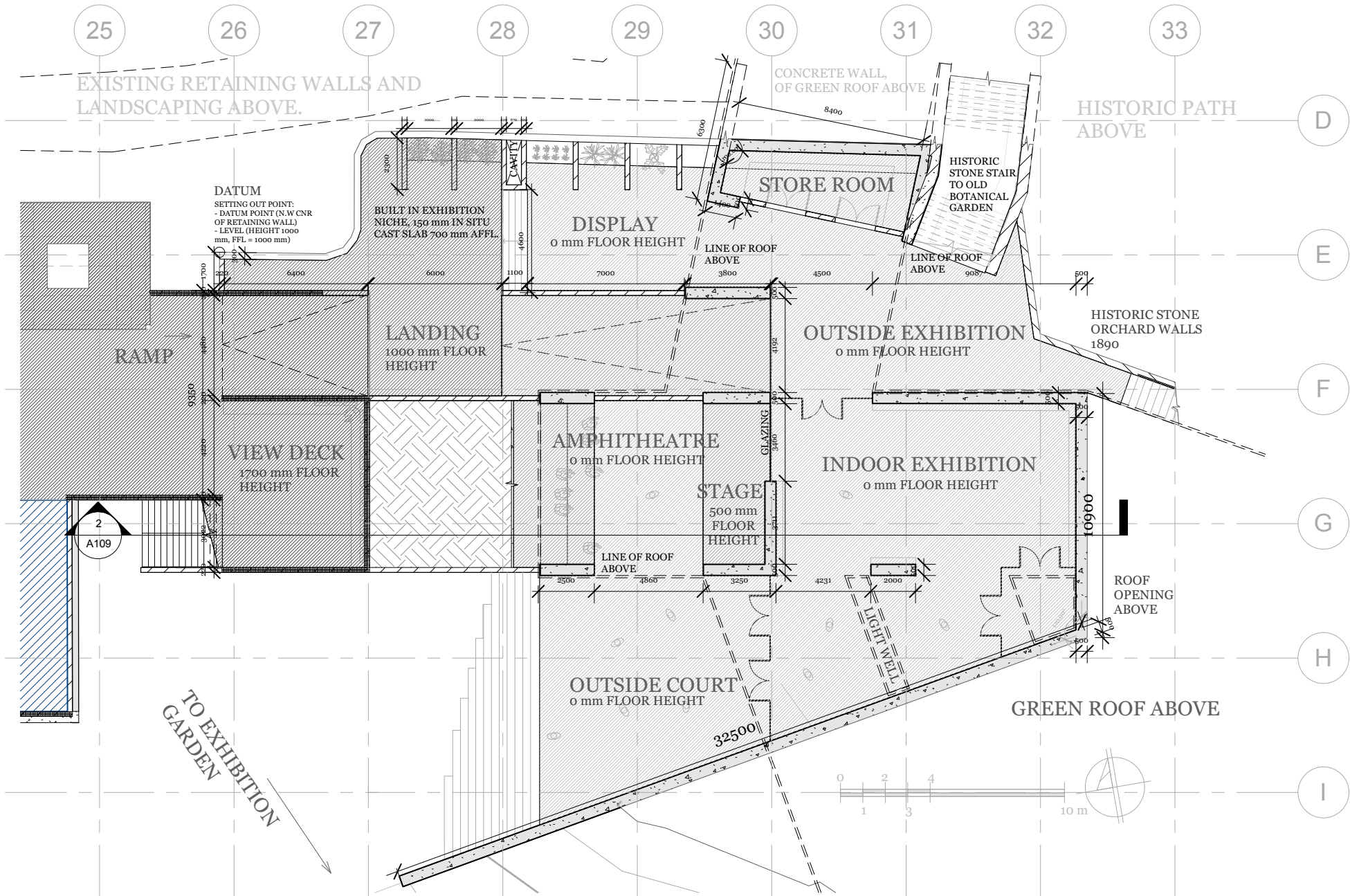


Fig_136: Concept diagramme of the exhibition building.

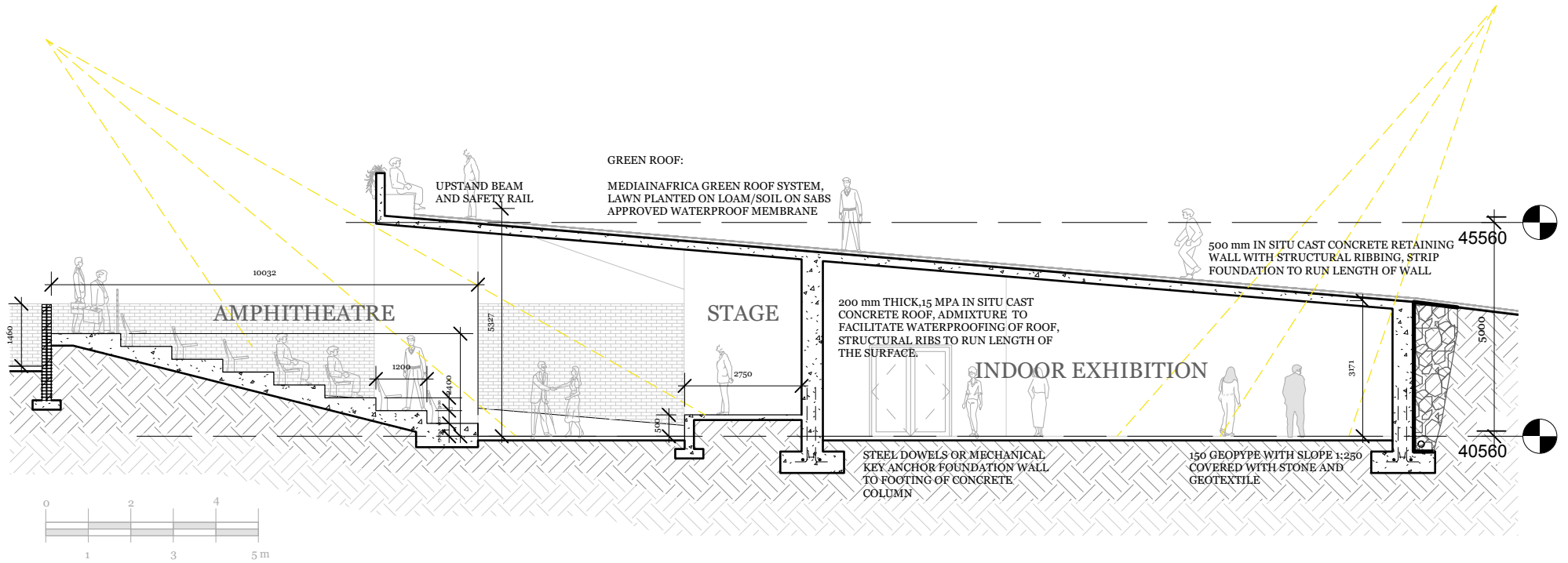
EXHIBITION HALL PLAN



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

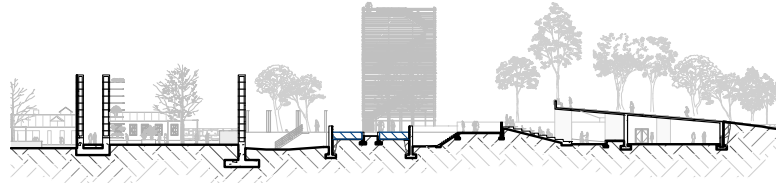


EXHIBITION HALL SECTION

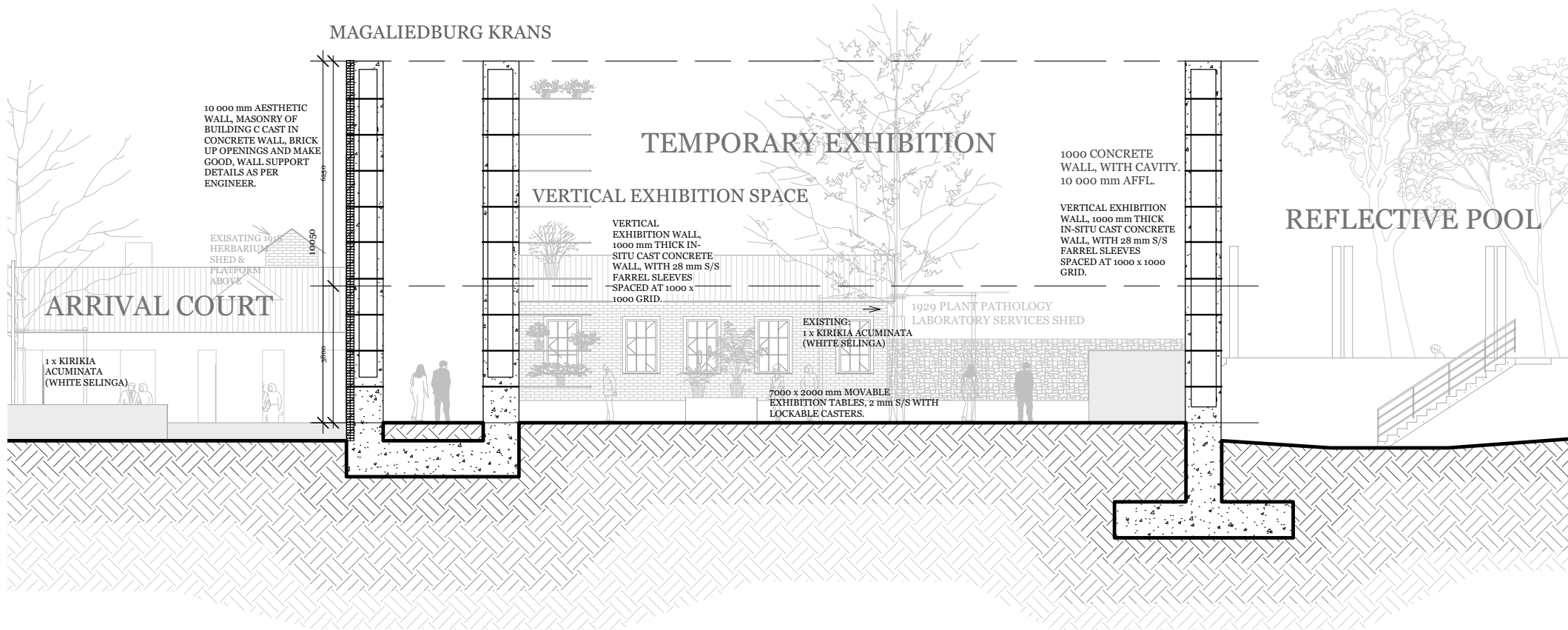


EXHIBITION BUILDINGS

SECTION

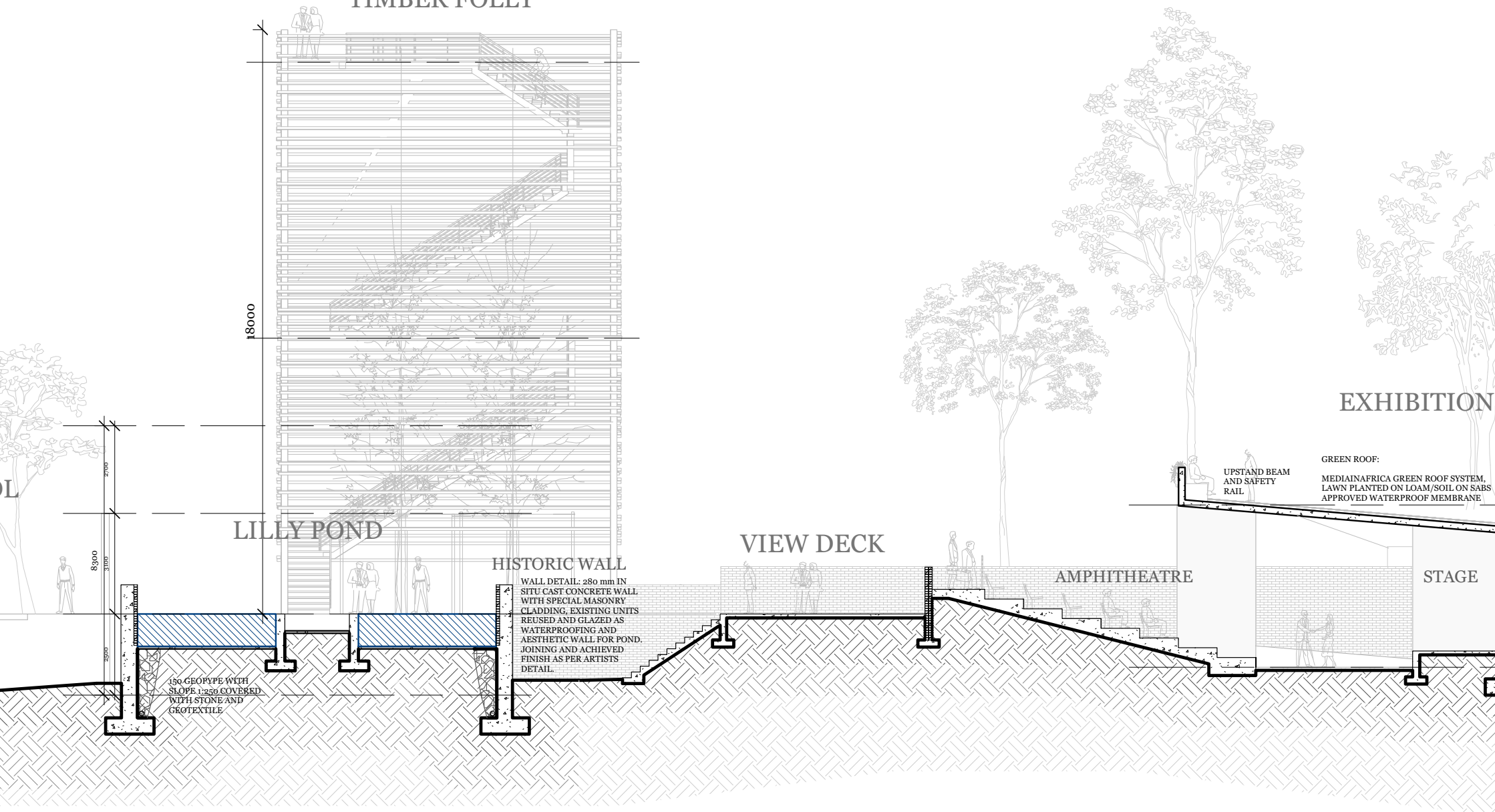


SECTION KEY





TIMBER FOLLY



18000

LILLY POND

HISTORIC WALL

WALL DETAIL: 280 mm IN SITU CAST CONCRETE WALL WITH SPECIAL MASONRY CLADDING. EXISTING UNITS REUSED AND GLAZED AS WATERPROOFING AND AESTHETIC WALL FOR POND. JOINING AND ACHIEVED FINISH AS PER ARTISTS DETAIL.

150 GEOTYPE WITH SLOPE 1:250 COVERED WITH STONE AND GEOTEXTILE

VIEW DECK

AMPHITHEATRE

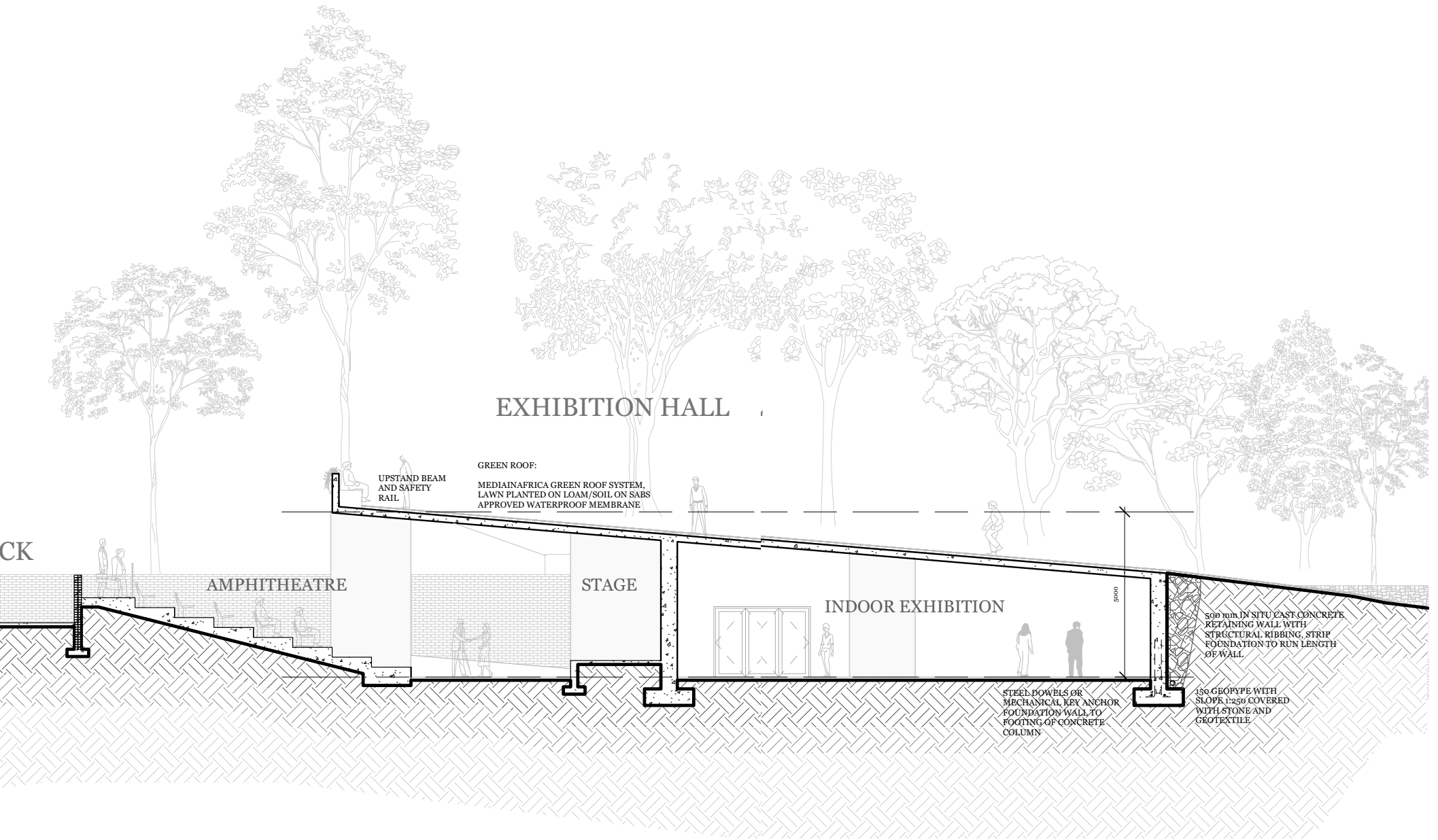
STAGE

EXHIBITION

GREEN ROOF:

MEDIANAFRICA GREEN ROOF SYSTEM. LAWN PLANTED ON LOAM/SOIL ON SABS APPROVED WATERPROOF MEMBRANE

UPSTAND BEAM AND SAFETY RAIL



HOUSE VREDE & EXHIBITION BUILDINGS

FINAL MODEL



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

